



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,424	09/10/2003	Yutaka Mizuno	FY.50656US1A	4628

20995 7590 03/03/2005

KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER

BASINGER, SHERMAN D

ART UNIT PAPER NUMBER

3617

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/659,424	Applicant(s) MIZUNO ET AL.
	Examiner Sherman D. Basinger	Art Unit 3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 4, 8-23, 27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 24-26, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/7/05 & 4/9/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The subject matter of claim 7 lacks proper antecedent basis in the specification.
2. In the amendment to the paragraph beginning at line 13 on page 23 filed February 7, 2005, applicant in line 8 of the paragraph changed "assembly 250" to "assembly 250" as opposed to -assembly 251-. Correction is required.

Election/Restrictions

3. Claims 4, 8-23, 27 and 28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on October 4, 2004.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5, 7, 24-26 and 29-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda et al in view of Morrison.

Matsuda et al discloses a hull H, a propulsion unit P, a steering system 10 and 10A with an operator steering control configured to rotate a steering shaft 10A between a first maximum turning position 32a and a second maximum turning position 32b to permit an operator of the watercraft to control a position of the steering system.

Matsuda et al does not disclose a force detection assembly configured to sense a force further applied to the operator steering control after the operator steering control is turned to either of the first and second maximum turning positions, and a control system configured to increase an output of the propulsion unit when the force further applied to the operator steering control exceeds a predetermined threshold.

Matsuda et al discloses the use of proximity sensors 40 and 41 to increase output of the propulsion unit when the operator steering control exceeds a predetermined threshold.

Matsuda et al also discloses in column 10, line 29 that a contact type sensor can be used in place of the proximity sensors.

Morrison et al discloses such a contact sensor in conductive rubber load cell 30. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to use contact sensors similar to 30 of Morrison in place of the proximity sensors used by Matsuda et al. Such sensors would require placement on stops 32a and 32b of Matsuda et al in order for portion 30p to contact them and produce the required load. Such load sensors would enable a force detection assembly configured to sense a force further applied to the

operator steering control after the operator steering control is turned to either of the first and second maximum turning positions. The control system configured to increase an output of the propulsion unit when the force further applied to the operator steering control exceeds a predetermined threshold is already provided by Matsuda et al.

Motivation to make such a change is to avoid having to use the cable system in the embodiment of figure 4A of Matsuda et al. A simple and more precise system will result.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to configure the control system of Matsuda et al to increase an output of the propulsion unit in proportion to a magnitude of the force further applied to the operator steering control. Motivation to do so is to make sure the watercraft turns as quickly as the operator desires.

The fixed stops of claim 5 would be 32a and 32b of Matsuda et al, the moveable stop would be 30p of Matsuda et al, the load receiving elements would be the load cells provided to the stops of Matsuda et al in view of Morrison. Each of the load cells would be compressed by 30p of Matsuda et al.

The combination of Matsuda et al and Morrison would also provide a steering assist method for a watercraft comprising determining a force through the load cells further applied to an operator steering control after the operator steering control is turned to a maximum turning position 32a,32b, and increasing a steering force of the watercraft by speeding up the engine when the force further applied to the operator steering control exceeds a predetermined threshold.

That the steering force is increased in proportion to a magnitude of the force would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains in order to provide the degree of turn the operator is demanding.

Matsuda et al discloses that the step of increasing a steering force involves increasing an output of a propulsion unit of the watercraft.

The tactile signal provided to the rider is provided by the stops of Matsuda-32a, 32b.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda et al and Morrison as applied to claim 5 above, and further in view of Sezaki.

The combination of Matsuda et al and Morrison does not disclose the use of a magnetostrictive detection system. Such systems are known as is shown by Sezaki. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to use as the load cells provided to Matsuda et al in view of Morrison a magnetostrictive detection system with at least one sensor configured to detect a change in a magnetic permeability of either of the first and second load receiving elements.

Motivation to do so is to obtain the benefits a magnetostrictive system provides over the use of load cells similar to those of Morrison.

Response to Arguments

7. The rejection of claims 29 and 30 with Matsuda et al is withdrawn in view of applicant's arguments filed February 7, 2005 under the subtitle "Matsuda et al. Does Not Anticipate Claims 29 and 30."

8. Applicant's arguments concerning the combination of Matsuda et al and Morrison filed February 7, 2005 are not persuasive. Motivation to combine Matsuda et al and Morrison is not just found in applicant's disclosure. As pointed out to applicant, Matsuda et al in column 10, line 29 discloses that steering position sensor Sp can be constituted by a contact type sensor. The load cells of Morrison are contact type sensors. Once such contact type sensors are used with Morrison to replace sensors Sp, Matsuda et al as modified with Morrison will function as claimed.

9. The rejection of claims 1-3, 5-7, 24-26, 29 and 30 stands.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherman D. Basinger whose telephone number is 703-308-1139. The examiner can normally be reached on M-F (6:00-2:30 ET)/5:30-2:00(after 4/11/05).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sherman D. Basinger
Primary Examiner
Art Unit 3617


2/28/05